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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,724	04/04/2001	Alex Horng	HORN3002/EM/6663	1746

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EXAMINER

LE, DANG D

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 06/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/824,724

Applicant(s)

HORNG ET AL. 

Examiner

Dang D Le

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. in view of Swartz.

Regarding claim 1, Watanabe et al. show a double sensing face motor structure (Figure 10) comprising:

- A base board (3), defining an axial hole (for bearing box 4);
- A plurality of stator coils (S1-S3) mounted around a periphery of the axial hole in an equally spaced annular manner (Figure 2);
- A sensor member (PS1-PS3) mounted on the base board;
- Two rotors (8, 12), respectively located on an upper side and a lower side of the base board to integrally combine with each other, each of the two rotors provides, with a permanent magnet (M1-M4 and N1-N4) arranged to respectively interact with the coils of the base board; and

- A central shaft (7), attached to a center of each of the two rotors, and rotatably mounted in the axial hole of the baseboard in a positioning manner (Figure 10).

Watanabe et al. do not show a start coil mounted on the baseboard.

Swartz shows a start coil (10) mounted on the baseboard for the purpose of starting the motor.

Since Watanabe et al. and Swartz are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to mount a start coil on the base board as taught by Swartz for the purpose discussed above.

Regarding claim 2, it is noted that Watanabe et al. also show the base board (3) being provided with a plurality of breaches (Figure 10) for receiving the plurality of coils.

Regarding claim 3, it is noted that Watanabe et al. also show the center of at least one rotor (8) being provided with a central seat (top portion) for allowing tight insertion of the central shaft (at 6).

Regarding claim 4, it is noted that Watanabe et al. also show a shaft seat (4) secured on the axial hole of the baseboard, the shaft seat provided with a bearing (5) for rotatably receiving the central shaft.

Regarding claim 5, it is noted that Watanabe et al. also show the central shaft (7) having one end (top portion) integrally formed with the two rotors.

Regarding claim 6, it is noted that Watanabe et al. also show the two rotors (8, 12) being combined with each other by the central shaft (7, Figure 10).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. in view of Swartz as applied to claim 1 above, and further in view of Shiraki et al.

Regarding claim 7, the motor of Watanabe et al. modified by Swartz shows all of the limitations of the claimed invention except for at least one rotor being provided with blades.

Shiraki et al. show at least one rotor being provided with blades (30) for the purpose of making a fan.

Since Watanabe et al., Swartz and Shiraki et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide at least one rotor with blades as taught by Shiraki et al. for the purpose discussed above.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. in view of Swartz as applied to claim 1 above, and further in view of Lukens.

Regarding claim 8, the motor of Watanabe et al. modified by Swartz shows all of the limitations of the claimed invention except for one rotor being provided with blast blades, and the other rotor being provided with axial flow blades.

Lukens shows the rotor being provided with blast typed blades (27) and axial flow typed blades (14) for the purpose of reducing heat.

Since Watanabe et al., Swartz and Lukens are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide one rotor with blast typed blades, and the other rotor with axial flow typed blades as taught by Lukens for the purpose discussed above.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. in view of Koyama et al.

Regarding claim 9, Watanabe et al. show a double sensing face motor structure (Figure 10) comprising:

- A base board (3), defining an axial hole (for bearing box 4);
- A plurality of stator coils (S1-S3) mounted around a periphery of the axial hole in an equally spaced annular manner (Figure 2);
- At least one sensor member (PS1-PS3) mounted on the base board;
- Two rotors (8, 12), respectively located on an upper side and a lower side of the base board to integrally combine with each other, each of the two rotors provides, with a permanent magnet (M1-M4 and N1-N4) arranged to respectively interact with the coils of the base board; and

- A central shaft (7), attached to a center of each of the two rotors, and rotatably mounted in the axial hole of the baseboard in a positioning manner (Figure 10).

Watanabe et al. do not show the at least one sensor member being mounted at a corner position of one of the stator coils.

Koyama et al. show the at least one sensor member (8, Figures 7A-7D) being mounted at a corner position of one of the stator coils.

Since Watanabe et al. and Koyama et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to mount the at least one sensor member at a corner position of one of the stator coils as taught by Koyama et al. for the purpose discussed above.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Information on How to Contact USPTO

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL
June 14, 2002


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
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